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INTERPERSONAL COMMUNICATION WITHIN ORGANIZATIONS*

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Communication is the means we have of sharing our experiences with one another.

Man has a greater capacity than any other animal for using symbols in his communications. By using symbols to represent things and relations between things, he is able to transmit ideas to other persons whether they are present or not, and about things that may not, in fact, even exist.

Perhaps man's greatest quality is his capacity for creating and giving symbolic labels and values to intangible or abstract things. By making use of this capacity he is able to extend himself so that he can participate in groups far removed in space and time, and share with others his thoughts, his beliefs, his hopes, his fears, his concerns, his expectations and his intentions.

It is for these reasons that I particularly like Cooley's (1) thought that communication is "the mechanism through which human relations exist and develop—all the symbols of the mind, together with the means of conveying them through space and preserving them in time." Gestures, sounds, pictures, words, signs—and actions, too—are the basic means we have for passing along our ideas, feelings, images, and intentions from one person to another and from one generation to another.

This process of communication has sometimes been described as a sort of input-output system. At one end the

communicator selects and pours in the information; at the other end, the communicant receives, evaluates, sorts, and stores it. He is assumed to receive the facts just as completely and accurately as they were presented, and with the complete and sound facts in mind, he is in position to act as desired. If he does not act as expected, he is assumed to be stubborn or uncooperative. He is resisting change.

Today there is a growing body of evidence (2) that this communication process, from beginning to end, is a dynamic one, with undercurrents of need and purpose constantly present, shaping the behavior of both the communicator and the person with whom he is seeking to communicate. Man is constantly seeking to reconstruct his environment so that it better satisfies his individual and group purposes. He uses all the signs and symbols and other means available to him in his efforts to influence others. At the same time, in his relations to others he tries to find the meaning and significance their symbols of communication have for him.

In discussing with you some of the research findings concerned with interpersonal communication in organizations, I have been tempted to focus my entire attention on the conscious and unconscious needs and purposes that influence communications. To do so, however, would be to ignore a most important fact: the possibility of effective interpersonal communication does not exist equally for all members of an organization. Certain conditions

relating to time, space, and function need to be satisfied before there is much chance for personal or group purposes to be expressed, or for needs to be satisfied through interpersonal communications.

We need to consider:

First: How are communications influenced by when and where people in the organization do their work? How are they influenced by the way the building is constructed, the way the rooms, halls and stairways are placed, the way the rooms are organized and the desks are arranged, the placement of washing and eating rooms, the kinds of entrances and exits, and the formal and informal passages through the building? All of these things may be of importance in determining what possibilities exist for interpersonal communications.

Next: How are communications influenced by the formal and informal arrangements developed to carry on the business—by the philosophy of leadership, the pattern of authority and responsibility, the patterns of prestige and status, and the kinds of roles performed?

Finally: How are communications influenced by the need and response patterns of the individuals concerned—their unique patterns of motivation and perception, and their unique patterns of reaction.

In brief, we need to consider first the physical situation, second the web of relationships within which individuals function, and finally the

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unique qualities of the communicating individuals.

Physical Situation

There is a wealth of evidence that the way a building is constructed tends to influence the patterns of communication within it. We recognize and speak to people we meet frequently in the halls; we tend to stop for a chat with the person who has a desk nearby. But the person who can come and go through a side entrance may have to go out of his way to learn the latest gossip.

It seems reasonable that the same kinds of counting and observational techniques used by businessmen in testing out a new location should be useful in studying the pattern of traffic through a health department. Studies of museums and exhibits do, in fact, indicate that people tend to follow particular pathways. This may result in their missing out on important displays. (3)

Festinger and others, (4) in studying interaction and communication within a housing development, found in a sociometric study that persons living in apartments that opened directly onto the stairways tended to be chosen more often by others. Apparently living close to the flow of traffic helped them to become known. Likewise, people living in the center of the court tended to be chosen more often than those at the end of the court. This general principle tends to apply in staff meetings and group discussions, and at parties also. The person who sits in the corner or on the outer fringes of the group tends to be left out of the conversation.

This does not mean, of course, that mere proximity will lead to more effective communications. Rather, nearness permits an increase of interaction to occur, and this in turn may lead to participation and the possibility that an acquaintanceship or friendship will develop.

In brief, the convenient path tends to be the one most frequently used, and when convenient paths cross, communications tend to be facilitated.

One might ask, are the physical arrangements within the health department such that they encourage or discourage communications across professional lines? Do the physical arrangements encourage communications upward, or downward? Is the

physical placement of staff people such that it encourages or discourages their interaction and communication with members of groups with whom they are expected to work? Is the health educator, for example, located where interactions frequently occur? This may not necessarily be the place of greatest status.

The Web of Relationships

In thinking about my second question, "How are communications influenced by the formal and informal arrangements developed in carrying on the business of the organization," I was led immediately to consider the tremendous differences in the communication pattern in a dictatorship as compared with that within a democracy. A dictator maintains power in part by limiting the type and amount of information available to those he is attempting to control. He protects members of the group from adverse or unnecessary communications, and by protecting them gains and maintains a monopoly over the information to which they are exposed. In such a situation communication is primarily downward. When upward communications do occur, they are likely to be patterned to satisfy the expectations of the leader or the leadership group.

We tend to forget that this same type of information monopoly sometimes develops, perhaps unintentionally, within our own administrative situations. Passing on information may be a burden, and we may not have time to communicate adequately. We make decisions for others regarding the information they should have. We say, "Let's not bother him with this," or "This won't really concern him," or "He's not going to have time to read this."

Such administrative decisions are often necessary. Yet they are potentially sources of communication difficulty. For when we start to protect others from information we are, in a way, controlling their possibilities for interaction.

In a democratic organization where distribution of power is desirable, intragroup and intergroup communications and interaction must be encouraged.

The philosophy of leadership may, therefore, greatly influence the kinds of interpersonal communications possible within an organization. Active

intragroup and intergroup communication is not likely to occur unless the leader encourages such communication, and unless the members of the group clearly recognize that such communication is being encouraged.

In order for any organization to function effectively, the members must carry out different roles, each with a different kind of responsibility. Depending on the importance of these roles, those who perform them acquire different levels of status within the group. This status may be of either a formal or an informal nature. In either case the role and status patterns of the group influence the nature of interpersonal communications.

Wessen, (5) for example, reported that in one large general hospital 75 percent of the doctors' conversations were with other doctors; 60 percent of the nurses' conversations were with other nurses; and 60 percent of the conversations of the workers of other groups tended to be with others in their own group. Other researchers have reached somewhat similar conclusions.

This might reasonably be expected, since there is evidence that people of different occupational groups within a hospital setting tend to differ in their patterns of values and in their areas of striving. (6) A person of a particular status level within an organization is, therefore, likely to have more in common to converse about with persons of similar training, experience and status.

Since status is an important social goal it is not surprising that, in their communications outside their own status groups, individuals tend to try to communicate upward. They seek communication with persons who may be able to help them achieve their individual and group goals; likewise, they tend to avoid communications with persons of lower status, or others whom they do not perceive as being potentially helpful. An exception to this is the person with supervisory responsibilities who has much to gain through effective communication with persons of lesser status. (7)

Since health educators have both staff and consultant responsibilities, it may be of interest to mention briefly some of the special problems of role identification and communication that

have been identified by Dalton in his studies of the line officer and staff officer relationship. (8)

A person responsible for a line job or a direct program job usually has his responsibilities and role rather clearly delineated. His goals tend to be somewhat more specific than those of the consultant; often they can be measured by tangible evidence. He may have the responsibility for both initiating and controlling the action necessary for achieving these goals.

A staff consultant, on the other hand, has an ambiguous role. He is expected to assist or advise on ways of introducing new ideas or techniques for improving the program, but does not have the authority to put his suggestions or recommendations directly into action. He works with others on their programs and may sometimes be seen by them as a competitor—or even as a threat—because his training, his abilities and his channels of communication differ from their own. His influence is likely to be ambiguous. Achievements cannot be easily measured; rewards, if any, are likely to be intangible. Frequently he is in such a position that the line officer must communicate downward to him, and the line officer may resent the idea of communicating downward when asking for help.

Staff officers tend to associate and communicate with members of their own groups; program officers tend to associate and communicate with members of their own groups. The problem of developing and defining staff and line roles in such a way that interaction and cross communication will be facilitated is a very real one indeed.

May I ask, with whom did you lunch most frequently last week? With whom did you have coffee most frequently? With which members of your organization do you get together after hours? With whom in your organization do you have the greatest difficulty in communicating—in getting together and exchanging ideas and in reaching satisfactory agreements? What factors might have influenced these interactions?

The physical and social structure of an organization has a great deal to do with the amount and kind of interpersonal communications that are possible. In the end, however, whether or not interpersonal communications

actually occur and are effective depends on the unique characteristics of the individuals directly concerned—the communicator and the person with whom he is attempting to communicate. One cannot adequately discuss the role and behavior of either the communicator or the communicant without taking into consideration the role and behavior of the other. I have chosen here to discuss the process first from the standpoint of the communicator and second from the standpoint of the person with whom he is communicating. As we go on I am sure you will agree that this separation is artificial.

The Unique Qualities of the Communicator

The behavior of the communicator in any act of communication is motivated. The needs, values, and purposes that the communicator has acquired through experience influence both what he selects to communicate and how he expresses it. His behavior is ruled by needs and purposes of which he may be unaware, as well as by his conscious decisions and intentions.

Freud led the way in demonstrating to us that all behavior is motivated. In his challenging *Psychopathology of Everyday Life* (9) he called attention to the hidden needs and wishes that govern the remembering and forgetting of things, and to the motives that lie behind our slips of the tongue, slips of the pen, misreadings, *faux pas*, and other errors of commission and omission. Sometimes we are willing to admit that there may be purpose in error. Often, however, the motives are so intimate or so unflattering that we cannot admit them, even to ourselves. In fact, we may not even notice the slip made in expression or gesture. It is not surprising, therefore, that others can sometimes recognize and interpret these errors more accurately than we can ourselves.

As infants, our first communications with other persons in this world are through nonverbal gestures, soft, warm pressures, touches and pats, caresses, facial expressions, waving, and pointing. We learn to respond to them with appropriate nonverbal symbols of our own. We learn such nonverbal symbols, and we discover them to be reliable for predicting how to act successfully at a time when we

know few safe and effective guidelines.

As we grow older and begin to learn to use words, our nonverbal communications are suddenly ignored. We are urged to speak, and to react to spoken words, and to discard the techniques which have proved so valuable during our first years of life.

But we may never completely discard these valuable means we have acquired for interpreting the reactions of others. Long after we have learned to understand spoken symbols, we continue, in varying degrees, to be sensitive to the expressions on people's faces, to the movements of their bodies, to the way they turn their heads or move their eyes as we speak, to the shrugs or nods that may be almost imperceptible, yet tell so much about their reactions.

Is it any wonder that the nonverbal means of expression also remain with us even after we have learned adult ways? Is it any wonder that we use them without even knowing it—sometimes when we don't even mean to do so? And is it any wonder that other persons may find such signs, which may be given without conscious intent, more reliable in judging our true intentions than the words or expressions we consciously employ?

We distrust the man whose actions or expressions belie his words; and on the positive side we may share deep feelings and understandings with one another without even being aware of the symbols we are using or the signs we perceive. The silence of lovers, for example, may impart deep feelings, and not always the same feelings.

When it comes to communicating across the boundaries of social groups, difficulties arise because we tend to perceive others as having the same personal needs, desires, and purposes that we have. The communicator as a unique individual with unique motives, beliefs, and attitudes selects interpretations which have personal meaning for him and which he believes will have meaning for others. When he has a background of experience different from that of his audience, he may be quite unable to communicate because he cannot see things in the same way they do. Yet he may sincerely believe he is being successful because he tries so hard—and his

audience tries so hard to make him feel comfortable.

In many ways you and I may be better able to communicate effectively over language and cultural barriers with our professional friends in other parts of the world than we are able to communicate effectively with members of our own organizations whose patterns of experience would lead them to differ more sharply with us in some areas of value and belief. One of the greatest challenges we face is that of developing effective communication bridges across the channels that separate professional groups.

The other person and the social and physical situation which helped to shape his behavior must always be uppermost in the mind of an effective communicator. This means that the effective communicator must be a sensitive receiver and evaluator of information even while he is performing his communication role.

The Unique Qualities of the Communicant

As Sanford has so neatly put it, "It is the recipient of communication who determines whether communication has happened at all. He validates communication. Through his behavior, and only through his behavior, can we tell whether the communication has been more than interpersonal noise. It is perhaps true that much of the intended communication of the world misfires or fails entirely because the communicator pays more attention to his bow and arrow than to his target." (10)

My next major point, then, is that the behavior of the communicant in any communication process is motivated. The needs, values, and purposes that he has acquired through experience, his psychological "set," and his expectations with respect to the communicator are of primary significance in influencing the meaning the information will have for him and the way it becomes integrated into his patterns of knowledge, belief, and action.

Some years ago the chief of the Swazi people of Africa visited England with a group of his tribesmen to obtain settlement of a land dispute. After the party returned to their homeland, the British settlers in the area were eager to learn the Swazis' main impressions of England. The one

thing that remained most vividly fixed in their minds was the picture of the English "bobbies" directing the traffic with uplifted hands.

Why did this simple action make such an impression? For the Swazis this was a familiar gesture. It was the gesture they used in their homeland for greeting their friends and neighbors. To them it was a warm, friendly greeting in this foreign land so far from home. It was one of the few things they experienced that fitted in with their own customs. It had an immediate personal significance for each one of them.

This is one of the many incidents reported a quarter of a century ago by the dean of British social psychologists, F. C. Bartlett, in a book which brought together many years of field observation and laboratory research under the title *Remembering*. Here Bartlett called attention to the tendency of the mind to reshape and organize all experience in a way that is meaningful and useful to the individual. His central theme was, "It is fitting to speak of every human cognitive reaction—perceiving, imagining, thinking, and reasoning—as an effort after meaning." (11)

Bartlett's phrase, "an effort after meaning," expresses very well the dynamics which underlie the role of the communicant. People seek meaning from experience. The meanings they attach to specific experiences tend to be those which make the best sense to them and have the greatest significance for them in terms of their patterns of value and experience.

Each of us charts his course through the world by means of his perceptions. During any specific moment of life our sense organs are bombarded by a wide array of light and sound waves, which we in psychology call stimuli. It would be physically and mentally impossible for any of us to be consciously aware of every one of these light and sound waves, much less pay attention to them and react accordingly. Fortunately, we learn through experience to organize this mass of stimuli into meaningful wholes that make sense to us and have meaning for us—wholes that help us decide how to act.

But what determines how this mass of light waves, sound waves, heat waves and other stimuli are organized

into meaningful wholes? What is the underlying process which results in some of these groups of stimuli or symbols being given a prominent position in perception while others remain in the background? As we say in psychology, what determines "the figure" as compared with "the ground"?

The best evidence available suggests that perception is an active, motivated process. What we perceive in the world about us is governed by personal interests, wants, concerns, anxieties, fears, hopes, and expectations—a network of motivating forces which grow out of our daily experiences. As Cantril expresses this principle, "What we are aware of is not determined entirely by our sensory processes; * * * the assumptions we bring from past experience, because they have generally proved reliable, are involved in every perception we have." (12)

Words Are Perceptions

You may be thinking that words are different from perceptions—what has perception to do with verbal communication?

Words are perceptions. Spoken words are organized groups of sound waves to which we give meaning; written words are organized groups of light waves to which we give meaning. Early in life we learn to give meaning to these groups of sound and light waves, so that we can act more effectively in adjusting to the world. This is part of the slow process of learning, the process of gradually differentiating specific groups of stimuli out of an unorganized mass. The meanings we associate with words are the meanings that help us most to act successfully in achieving the purposes of daily living.

Each person has his own special pattern of experience, values, concerns and purposes which serve him in making his "effort after meaning." It helps him to shape an unorganized mass of stimuli into a meaningful environment. The world he creates through his perceptions—his psychological world, or his assumptive world—is his own private world, different from anyone else's private world. As Kelly observed, "He can share this universe with others through communication, but only in part; because those with whom he attempts to com-

municate must interpret what he offers in accordance with the receiver's own unique background." (13) The possibility of the communication being successfully accomplished requires, then, that the assumptive worlds of the two or more individuals concerned overlap in the content area covered by the communication.

Let me emphasize that this private or assumptive world is not a world of fantasy or imagination. Nor is it just a lovely retreat from reality. Rather, it is for each of us an essential map or chart whereby we can evaluate possible activities against our past experiences and obtain guidelines for future action.

This concept of an assumptive world is, I firmly believe, a most valuable concept to use in thinking about communication and interpersonal relations. It helps us to understand why what we say has so frequently a different meaning for the person with whom we talk. It helps us to understand why each has a tendency to see and interpret any situation in the light of his own pattern of experiences and motivations, regardless of the means whereby this information is received. It helps us to understand the growing evidence that new knowledge alone is not likely to be effective in changing beliefs and actions, but that after some changes in belief have occurred or new values have been acquired, the individual is likely to seek new information that will be helpful to him in supporting the new beliefs or serving the new values.

Cantril (14) has suggested that our perceptions of other people, that is, our social perceptions, differ from our perceptions of things in that we are concerned as to what intentions the other individuals have which might be of importance to us. We need to know how their purposes or desires relate to our own personal and group goals. Any gestures, signs, or actions giving us an inkling as to what we can expect other people to do which is significant to our goals is of primary importance to us in determining how to act toward them.

This may help to explain why, other things being equal, communication is likely to be more effective if we perceive the person communicating as one who can be trusted, who is an expert, or who holds prestige in our

eyes. A popular and trusted health science writer may have more status in the eyes of the public than an outstanding scientist. Trusted local health leaders may be better able to capture public opinion than national leaders of great stature who have never met the test of years of experience in that local community.

We speak to an individual, watch his expression, notice whether he smiles or frowns, wait for his interpretations, seek guidelines which will tell us whether we are moving in the right direction or not. If he frowns or in some way indicates he has not agreed, we change our tones, use other arguments, give and take with him until we find a point of agreement. If his interpretation suggests that he does not understand, we change our words, try to find out how he interprets the problem, and use his terms as a bridge to better communication. This is the process whereby we gain entrance into his private world, his world of assumption. This is the means whereby he, and we, are able to gain an overlapping of our private worlds in the area of mutual significance.

Summary

Communication is a means of sharing our experiences with one another. Communication within an organization may be either limited or facilitated by physical and structural arrangements, and by the unique web of formal and informal relationships developed to carry out the business of the organization. The effective communicator within the organization is at the same time a provider and receiver of information and ideas. Both the way he selects and organizes the facts and the way he expresses the ideas are influenced by personal motives of which he may not be fully aware. His actions, both as a receiver and giver of information, are guided by his perceptions of the world in which he lives. This world he perceives is his private world, a world of assumptions, built out of successful and unsuccessful "efforts after meaning" and the experiences he has had in seeking ways to satisfy his personal and group purposes.

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CCS Administrators to Confer

The annual meeting of medical directors and nonmedical administrators of Crippled Children Services programs throughout the State will be held in Santa Barbara, May 13th-14th, at the Miramar Hotel.

Primary points of emphasis at the two-day meeting will include discussion and consideration of problems faced by administrators in the statewide program which provides corrective medical care to children with certain physically handicapping conditions.

Influenza Epidemic Appears To Be Drawing to a Close

All the indices for estimating the prevalence of influenza indicate a decisive decline in recent weeks, dropping well below the epidemic thresholds. The number of new cases of upper respiratory illness, as determined by the California Health Survey, showed a 47 percent decrease for the week ending February 15th from the previous week. Deaths from influenza and pneumonia have shown a general decline for the past month, remaining below the epidemic threshold for three of the last four weeks. Finally, the number of blood specimens positive for influenza A has dropped steadily in recent weeks.

The extreme peak of cases occurred during the week of October 20-26, 1957, when the incidence rate was four times as high as it was for the corresponding week during 1954-1955 and 6 out of 10 cases were reported as being influenza or pneumonia. The same proportion also reported spending one or more days in bed. This rate, with minor fluctuations, remained high through November. There was a dropoff during December, but the incidence rate began to rise again during the first week in January and continued, with minor fluctuations, to remain about twice as high as the rates reported in January, 1954-1955, until the current sharp drop.

Most of the deaths in recent weeks have been recorded as due to pneumonia with influenza being mentioned in relatively few. It appears that in school-age children and industrial populations the supply of susceptibles had been exhausted by January. But this point probably was not reached in the older population until about March 1st. Deaths from influenza and pneumonia since January 1st have occurred predominantly among the oldest segments of the population, and the decline in their pneumonia death rate did not occur until the week ending March 15th.

The deaths believed to be due to or associated with influenza since the start of the epidemic in California have been compiled in detail, totaling 109. Of these, 14 percent were below the age of five and 31 percent above the age of 60.

CDC Offers Epidemiology Course

A course, "Epidemiology and Control of Food-Borne Diseases," will be offered at the Communicable Disease Center in Atlanta, May 19-23, 1958. Registration is open to persons who have administrative responsibility for food-borne disease control programs. Enrollment is limited to 60 persons.

Subjects to be covered include: epidemiologic problems, laboratory sampling procedures and interpretation of results, theory and application of statistical methods, diseases associated with food, human factors in food-borne diseases, and administrative responsibility.

The deadline for receipt of applications is May 9, 1958.

Forms and information may be obtained from Regional Medical Director, Department of Health, Education and Welfare, Room 441, Federal Office Building, Civic Center, San Francisco 2.

NCPHA Meeting

The Northern California Public Health Association will hold an all-day meeting, May 14th, at the Castlewood County Club, Foothill Road, Pleasanton. Section meetings have been scheduled for the afternoon session. Mary Chamberlain, Director of Public Health Nursing, San Joaquin Local Health District, is president of the association.

Less than 20 percent of the "bloods" from influenza-like cases submitted to the California State Department of Public Health laboratory are now positive for influenza A. The percent positive dropped from 29 for the week ending March 1st to 19th for the week ending March 22d. During the height of the epidemic the percent positives averaged 60.

One very encouraging set of statistics comes from the National Office of Vital Statistics in its tabulation of influenza-mortality rates in the major influenza epidemics in the United States since 1918. According to these figures the influenza viruses seem to be losing their lethal power in succeeding epidemics. The rate per 100,000 in October, 1918, was 2,890; in January, 1929, it was 590; February, 1953, 76; and in October, 1957, 50.

Livermore and Santa Rosa Voters Again Defeat Fluoridation

On April 8th voters in the Cities of Livermore and Santa Rosa went to the polls to vote on the issue of fluoridation; in both instances they rejected the measure. This was the second time fluoridation was defeated in these cities.

In Livermore fluoridation was the only proposition on the ballot, approximately 50 percent of the registered voters cast ballots defeating the measure by a vote of 1,429 to 987.

Of the five precincts voting, two were primarily made up of younger persons. The proposition gained a majority in these two precincts, 892 votes cast. It was defeated, by more than a two to one margin in the two precincts composed of older persons, 1,101 votes cast. In the fifth precinct, mixed ages, fluoridation narrowly lost, 429 votes cast.

Forty-seven percent of the voters turned out in Santa Rosa to vote on four propositions. Fluoridation of the community's water supply, placed last on the ballot, was the only one defeated, 4,315 to 2,860.

One result of the elections in these two cities is that the children of Livermore and Santa Rosa will continue to have up to 65 percent more dental decay than they would have had if the results had been reversed.

Air Sanitation Laboratory Receives Grant for Study

A grant supporting preliminary investigative work on the physical and chemical properties of the particulate pollutants in the atmosphere and their potential for causing health effects currently being conducted by the Air Sanitation Laboratory of this Department has been received from the U. S. Public Health Service.

The importance of particle size and composition of atmospheric particles in smog formation and in plant and animal damage stimulated the study now underway by this Department. The grant will enable the laboratory to acquire specialized equipment recently developed for the separation and collection of fine airborne particles.

Public Health Positions

Alameda County

Public Health Microbiologist: Salary range, \$375 to \$459. Bachelor's degree in public health bacteriology or microbiology plus internship and California certificate required.

Public Health Nurse: Salary range, \$394 to \$484. Possession of RN and PHN in California plus a bachelor's degree in public health nursing required.

Sanitarian: Salary range, \$414 to \$484. Graduation in Sanitary Science or related field and California registration required.

Physical Therapist I: Salary range, \$356 to \$436. Graduate from a recognized school plus California registration required.

Physical Therapist II: Salary range, \$394 to \$484. Same requirements as Physical Therapist I plus two years of experience.

Occupational Therapist I: Salary range, \$356 to \$436. Completion of an approved course and national registration.

Occupational Therapist II: Same requirements as Grade I plus 18 months' experience.

For details contact Office of Civil Service Commission, 188 Twelfth Street, Oakland 7.

Placer County

Public Health Microbiologist: Salary open. Requires California public health microbiologist license. At least one year experience in public health laboratory preferred.

Public Health Nurse: Salary open. Requires public health nurse certificate.

Sanitarian: Salary open. Must be registered in California. Write Richard F. White, M.D., Director of Public Health, 360 Elm Street, Auburn.

San Mateo County

Program Chief, Mental Health Service: Salary range, \$1,198 to \$1,497. Applicants must have or be eligible for a license to practice medicine in California and a certificate in psychiatry issued by the American Board of Psychiatry and Neurology. One year of administrative experience in a medical or public health program is also required.

Supervising Public Health Nurse: Salary range, \$439 to \$549. Possession of or eligibility for a license as a registered nurse and a certificate as a public health nurse plus one year of postgraduate study in the nursing field and three years of supervised public health nursing experience is required.

Applications and additional information may be obtained from the County Civil Service Commission, Redwood City.

Immunizing Agents Guide Available

The recommended age for first inoculations and boosters, mode of injection, dose and interval, and the maximum interval without repeating the series after the first injection are outlined for eight products in a "Guide for Use of Common Immunizing Agents."

The guide also contains the period necessary for immunity to develop,

Reported Cases of Selected Notifiable Diseases
California, Month of March, 1958

Disease	Cases reported this month			Total cases reported to date		
	1958	1957	1956	1958	1957	1956
Amebiasis	89	165	47	430	445	161
Anthrax	—	—	—	—	—	—
Botulism	—	—	—	—	—	—
Brucellosis	1	1	4	8	3	10
Chancroid	10	3	6	23	20	23
Cholera	—	—	—	—	—	—
Coccidioidomycosis	16	10	14	46	38	42
Conjunctivitis, acute infections of the newborn	2	—	1	8	1	2
Dengue	—	—	—	—	—	—
Diarrhea of the newborn	2	1	—	16	9	2
Diphtheria	1	—	—	2	4	12
Encephalitis, acute	42	39	45	106	88	112
Epilepsy	367	282	286	1,110	895	914
Food poisoning	43	16	105	272	91	208
Gonococcal infections	1,296	1,093	1,129	4,379	4,022	3,739
Granuloma inguinale	1	—	—	1	2	—
Hepatitis, infectious	164	159	175	503	508	574
Hepatitis, serum	6	11	7	26	27	19
Leprosy	—	1	1	1	6	2
Leptospirosis	—	—	—	2	—	1
Lymphogranuloma venereum	5	2	1	12	8	6
Malaria	—	1	2	2	3	6
Measles	5,152	11,000	4,092	9,527	24,900	9,049
Meningococcal infections	19	17	35	62	55	100
Mumps	2,392	2,394	5,267	6,297	6,815	14,857
Pertussis (whooping cough)	268	94	148	800	340	515
Plague	—	—	—	—	—	—
Polio myelitis—	—	—	—	—	—	—
Total	11	26	87	39	95	346
Paralytic	5	11	55	23	53	235
Nonparalytic	6	15	32	16	42	111
Psittacosis	3	3	3	6	6	9
Q fever	2	4	4	2	4	8
Rabies, animal	16	10	55	33	19	115
Rabies, human	—	—	—	—	—	—
Relapsing fever	—	—	—	—	—	—
Rheumatic fever	15	13	15	45	41	44
Rocky Mt. spotted fever	—	—	—	—	—	—
Salmonellosis	75	66	115	179	174	290
Shigellosis	82	80	153	322	258	467
Smallpox	—	—	—	—	—	—
Streptococcal infections (including scarlet fever)	1,207	969	801	3,385	3,119	2,050
Syphilis	579 ^a	491	489	1,640 ^b	1,472	1,474
Tetanus	3	—	4	8	5	10
Trachoma	—	1	—	1	1	2
Trichinosis	1	—	1	1	—	2
Tuberculosis	529	590	— ^c	1,685	1,820	— ^c
Tularemia	—	—	—	1	—	1
Typhoid fever	1	3	9	13	12	23
Typhus fever, endemic	—	—	—	1	1	2
Typhus fever, epidemic	—	—	—	—	—	—
Yellow fever	—	—	—	—	—	—

^a Excludes 267 cases found positive by special serologic survey (Mexican National farm workers at Border Reception Center, El Centro).

^b Excludes 707 cases found positive by special serologic survey (Mexican National farm workers at Border Reception Center, El Centro).

^c 1956 data not comparable.

with comments and contraindications for each immunizing agent. The agents listed are: DPT, DT, DT-adult type, polio, smallpox, influenza and typhoid vaccines, and gamma globulin.

The guide was developed by this

department in co-operation with the California Conference of Local Health Officers.

Copies of this single-page chart may be obtained through local health departments in the State.

Mussel Quarantine Declared

The annual quarantine of mussels for human consumption has been declared by the State Board of Public Health as a protection to Californians from the highly toxic poison present in the shellfish during the summer and early autumn.

The quarantine, established along the entire California coastal shore, will be in effect from May 1st to October 31st. Local health departments serving the coastal and bay counties are posting quarantine warnings covering both mussels and clams.

Mussels may be used for bait during the quarantine period, but must be broken open and placed in containers plainly marked, "For fish bait only. Unfit for human consumption."

Strict caution should be observed in the preparation of clams for summer meals during this period. Clams should be cleaned and washed thoroughly before cooking and all dark parts, where the poison concentrates during the May-October period, should be discarded. Only the white meat should be eaten.

The poison, found in plankton which serves as food for mussels and clams, is an alkaloid such as strychnine and can prove fatal to persons eating the toxic shellfish.

Labor Code Restrictions For Aliens Relaxed

The California Labor Code has been amended by Senate Bill No. 1044 to permit the employment on public work of "any professional person who

Contra Costa and San Luis Obispo Counties Declared Rabies Areas

Laboratory confirmed cases of rabid skunks found within the counties were the basis for declaring Contra Costa and San Luis Obispo Counties rabies areas. The action was taken by the California State Department of Public Health following meetings of the Rabies Advisory Committees for Region III and IV. Consideration was also given to the fact that both counties have recent histories of rabies indicating the existence of a reservoir of infection.

Thirty-six counties have now been designated as rabies areas since enactment of the rabies control law last year.

Five of the six counties in Region III and six of the eight counties in Region IV have been declared rabies areas. Rabies has not been recognized in Santa Barbara County, Region III, nor in San Mateo and San Francisco Counties, Region IV.

The rabies area declaration means that every dog over four months of age must be vaccinated against rabies

has declared his intention to become a citizen." Prior to the passage of this bill aliens were prohibited from working for state or local governmental agencies except in times of emergency.

Under provisions of the new law, a person who fails to secure his certificate of naturalization within one year after the time he is entitled to receive it is not considered to be a "person who has declared his intention to become a citizen."

and the counties must provide for the maintenance of a pound system and a rabies control program.

Forty-eight rabid animals, 44 of which were skunks, from 21 counties have been reported to this department this year.

The child of parents on the verge of divorce does not necessarily see his home as a place of great unhappiness and conflict, according to a sociologist at the University of California.—*UC Clip Sheet*, October 1, 1957.

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State Director of Public Health

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